of the Yellow Wagtail *Motacilia flava pygmaea*. There is no primary granivore breeding in the area and thus the Streaked Weaver may be able to fill a vacant niche. On this basis one could predict that it will firmly establish itself in the area.

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Behavioural indication of an African origin for the Malaysian Honeyguide *Indicator archipelagicus*

by Marina Wong

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On the basis of bill and body size and of plumage colouration, the Malaysian Honeyguide *Indictor archipelagicus* is considered to be more closely related to the Greater Honeyguide *I. indicator* and the Scaly-throated Honeyguide *I. variegatus* of Africa than it is to the only other Asian species, the Himalayan

Orange-rumped Honeyguide *I. xanthanotus* (Friedmann 1954, 1955). Here, I discuss a behaviour trait of the Malaysian Honeyguide which supports the notion that it is descended from an African form.

I consistently heard the *miaw-krrruuu* call (Harrisson 1950, Smythies 1968, M. Wong) of the Malaysian Honeyguide issuing from the forest overstorey between trail markers A16 and A17 (50 m apart) in Pasoh Forest Reserve (Negeri Sembilan, West Malaysia) during the period May 1978–1980. Since the discovery of this site by J. C. Pearson in April 1976 (D. R. Wells), a honeyguide has called there during all irregular checks made by various observers. (D. R. Wells recently informed me that the call-site has been abandoned since February 1982.) It is not known whether the same bird was heard in each instance since no attempt was made to mark the bird at the call-site. However, observations made elsewhere indicate that different males may successively use one particular call-site (K. Scriven *in* Medway & Wells 1976).

The honeyguide was not heard to call until an observer approached quite close to the call-site. This was not because the call attenuated with distance since a second person, standing 150–200 m away (at either trail marker A13 or A20), could clearly hear the call made at the call-site. As it called, the honeyguide moved in an agitated fashion from branch to branch within a circumscribed area in the foliage c. 15–20 m above the ground; but it did not fly away from the observer. As the observer left the visual field of the bird, the calling stopped, but the same calling behaviour resumed if the observer again approached. On occasion, when the honeyguide did not immediately see the returning observer, a single imitation of *miaw* was sufficient to cause the honeyguide to approach overhead and start calling.

Whereas other Malaysian rain forest birds would either fly away, stop calling or plunge deeper into the foliage on observing a human, the Malaysian Honeyguide draws attention to its presence by calling continuously. This behaviour appears to resemble that employed by the Greater Honeyguide in Africa to attract the attention of large mammals before "guiding" them to the enclosed nests of the African honeybee *Apis mellifera* in order to feed on the wax combs exposed by the mammals' foraging activities (Friedmann 1955, Macpherson 1975).

Like the African honeyguides mentioned above, the Asian honeyguides also feed on beeswax and bees (see e.g. Friedmann 1974). However, the assistance of a large mammalian foraging symbiont in obtaining beeswax may be less critical for the Asian honeyguides than for the African honeyguides, since unlike the African honeybee which builds nests protected within cavities of hollow trees, the two common Malaysian honeybee species, the giant honeybee *A. dorsata* and the dwarf honeybee *A. florea*, build nests of single combs which are suspended vertically from the branches of emergent or fallen trees (Morse & Laigo 1969). These exposed nests are covered by a protective curtain of bees which readily attack animals that come too close to the nest. In spite of the fierceness of the giant honeybees, the beeswax is evidently quite accessible, since the territorial behaviour and mating system of the Orange-rumped Honeyguide are organized around the male's defense of the giant honeybee's nest and fallen wax combs (Cronin & Sherman 1976).

The observed natural history of Malaysian mammals suggests that they are improbable foraging symbionts of the Malaysian Honeyguide. The Malayan Sun Bear *Helarctos malayanus* feeds on bee larvae and honey and is an able climber (Medway 1969), but it is primarily nocturnal and would be unlikely to interact with the diurnal honeyguide. The arboreal civets such as the Binturung *Arctictis binturung* or the Three-striped Palm Civet *Arctogalidia trivirgata,* which by virtue of their climbing ability and foraging habits (Medway 1969) are likely to prey upon bees' nests, are also primarily nocturnal. Furthermore, there are no local legends of honeyguides leading humans to bees' nests as there are in Africa, and like the other Malaysian mammals, humans in the area harvest honey at night when the giant honeybees tend to be less aggressive (Morse & Laigo 1969). Hence, the responsiveness of the Malaysian Honeyguide to humans (and possibly to other large mammals) cannot be explained by the established occurrence of a foraging association with other animals.

Guiding behaviour in the honeyguides has only been reported for the phylogenetic branch which includes the Scaly-throated Honeyguide and the Greater Honeyguide and is better developed in the latter (Friedmann 1954, 1955, MacPherson 1975). Because of the similarities in bill morphology and plumage characteristics, Friedmann (1954, 1955) considered the Malaysian Honeyguide to be derived from an ancestral form similar to the Scaly-throated Honeyguide and further noted that the purring quality in the ending of the *miaw-krrruuu* call of the Malaysian Honeyguide resembles the *ghrrr* note of the Scaly-throated Honeyguide. (Refer to Payne, in press, for sonograms of these 2 species; unfortunately, there is no recording of the Himalayan Orange-rumped Honeyguide available for comparison.) The Malaysian Honeyguide's response of calling upon seeing a human may be attributable to the phylogenetic persistence of its African ancestor's attention-soliciting behaviour.

In the past several decades the incidence of guiding behaviour in the Greater Honeyguide has declined in areas of Africa where humans harvest wild honey less frequently than in the past and a high proportion of the birds observed to guide are juveniles (Friedmann 1955, R. B. Payne). These 2 observations suggest that while the responsiveness of the honeyguide to humans (or other large mammals) is innate, this behaviour will only persist and develop into a foraging symbiosis in the adult honeyguide if the initial efforts are consistently rewarding. More field observations are clearly required to investigate systematically the biological context of this responsive behaviour in the Malaysian Honeyguide. One immediately pertinent question would be whether juveniles are more likely to exhibit this attention-soliciting behaviour than adults.

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Polyrectricyly

by S. Somadikarta

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The number of tail feathers is constant for most species of birds, specifically for any taxon, or even for a sex within a species (*cf.* Stresemann & Stresemann 1966: 25).

Polyrectricyly is a term used here for the occurrence of more than a normal number of tail feathers in a bird. The tail of a bird can be unilaterally or bilaterally polyrectricylic. In unilateral polyrectricyly the shape of the tail is, of course, asymmetric. So far, no more than one extra feather has been shown either on the left side (left polyrectricylic), or on the right side (right polyrectricylic), while bilataral polyrectricyly is confined to only one extra feather on each side. Further investigations will be needed to show whether polyrectricyly is caused by chromosomal anomaly.

Heinroth (1898, 1907), Wetmore (1914), Friedmann (1930), Mayr & Mayr (1954), Steinbacher (1955), Sutter (1956), Verheyen (1956), Collins (1961) and Stresemann (1963), who all studied the tail moult of certain species of birds, did not mention finding any abnormalities in the number of the rectrices.

Stresemann & Stresemann (1966) in their monograph on the moult of birds, mentioned only 6 specimens with additional tail feathers out of more than 5000 bird skins examined. During bird ringing activities, De Roo (1967) caught an *Apus a. apus* with 12 rectrices in Overijse, 15 km SE of Brussels, on 1 July 1966. Scott (1969) trapped for ringing a *Corvus frugilegus* with 14 tail feathers at Lydd, Kent on 14 June 1968.

Among the owl, frogmouth, and wood-swallow collections of the Museum Zoologicum Bogoriense I have found 6 polyrectricylic specimens. These and all other specimens with additional tail feathers so far recorded are listed in Table 1.